

Notice of Allowability

Application No.

10/635,510

Examiner

John Ruggles

Applicant(s)

KAWASHIMA ET AL.

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the 8/17/05 amendment.
2. ☒ The allowed claim(s) is/are 1,3-7 and 10-21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


John Ruggles
Examiner, Art Unit 1756
571-272-1390

Response to Amendment

Claims 1 and 6 have been amended, claims 2 and 8-9 have been cancelled, and new claims 10-21 have been added.

In the submission filed on 8/17/05, Applicants' current amendments to the specification and remaining claims along with accompanying arguments on pages 15-18 have been found persuasive. Therefore, all previous objections and rejections are withdrawn.

Allowable Subject Matter

Claims 1, 3-7, and 10-21 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art does not show all the limitations of instant independent claims 1, 10, and 16 for at least the reasons set forth by Applicants in their amendment filed on 8/17/05, which have been found persuasive.

In particular, the prior art does not specifically teach a method of correcting a photomask comprising: (a) calculating a first correction for a configuration of a mask pattern of the photomask in accordance with: a space between the mask pattern and an adjacent mask pattern thereto, and a desired configuration to be transferred from the mask pattern; (b) dividing the photomask into a plurality of regions; (c) calculating a second correction of the mask pattern configuration in accordance with an occupation rate of the mask pattern in each of the plurality of regions, *in which the first correction has an effect in a smaller range than the second correction* (emphasis added); and (d) correcting the photomask based on the first correction and the second correction (as recited in claim 1). Therefore, claim 1 is allowable over the prior art. Claims 3-7 are also allowable over the prior art due to their dependence on claim 1.

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The prior art also fails to specifically teach a method of correcting a photomask by the steps set forth in claim 1 (as described above), wherein *the occupation rate in an arbitrary region is the average of occupation rates of the mask pattern in regions adjacent to the arbitrary region* (as recited in claim 10, emphasis added). Therefore, claim 10 is also allowable over the prior art. Claims 11-15 are also allowable over the prior art due to their dependence on claim 10.

Furthermore, the prior art does not specifically teach a method of correcting a photomask by the steps set forth in claim 1 (as described above), wherein *when an arbitrary mask pattern occupies more than one region of the plurality of regions, the second correction of each region occupied by the arbitrary mask pattern is the average of the second corrections of all regions occupied by the arbitrary mask pattern* (as recited in claim 16, emphasis added). Therefore, claim 16 is also allowable over the prior art. Claims 17-21 are also allowable over the prior art due to their dependence on claim 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

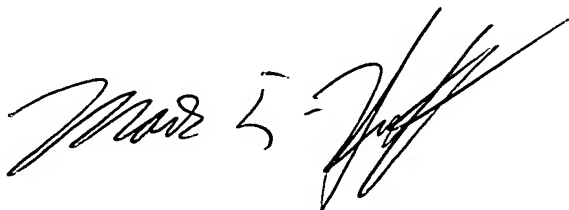
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Ruggles whose telephone number is 571-272-1390. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MARK F. HUFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700



John Ruggles
Examiner
Art Unit 1756